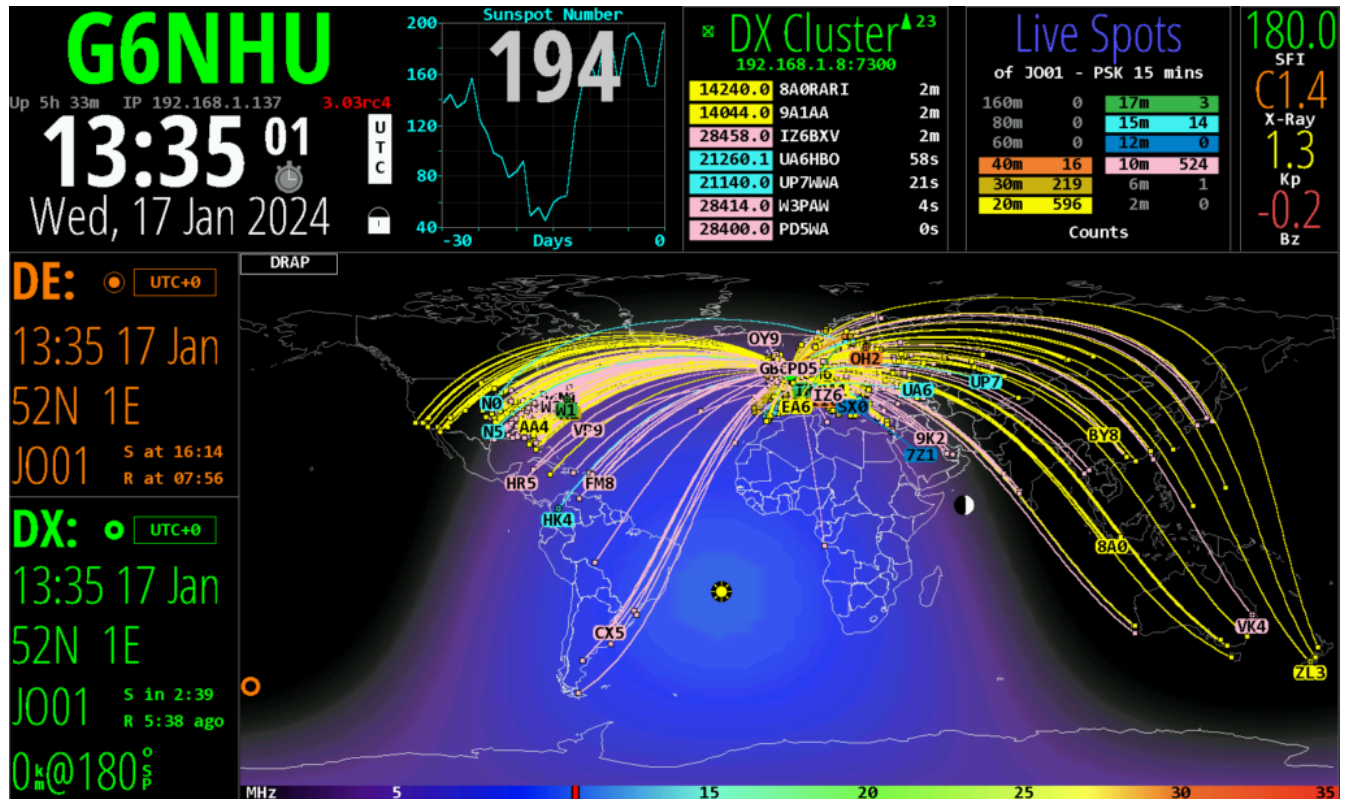


# HamClock on the Raspberry Pi

HamClock is a specialized internet data display application for amateur radio operators. It shows real-time space weather, HF propagation, operating events, and world clocks on a single screen. It is popular as a dedicated “shack dashboard” running on small computers and displays.



## What HamClock Is

HamClock is a kiosk-style program designed to run full-screen and continuously, providing at-a-glance information useful for HF operation.

It can effectively present a very dense data display on as small as 800x600 on a TV or monitor. It was originally developed for dedicated hardware and was later ported to Raspberry Pi and other Unix-like systems.

## Key Features

Real-time solar and geomagnetic data, including indices relevant to HF propagation.

VOACAP-based propagation prediction maps showing likely band openings between your location and the rest of the world.

Additional panes for things like DX clusters, contests, weather at your station location, and satellite information depending on configuration.

## Getting Started

While HamClock can run on Windows or Linux, our preferred platform is the Raspberry Pi for small, dedicated, stand-alone use.

The Raspberry Pi line is extensive. Happily, the best Pi is the one you have. Both the Raspian OS and HamClock will run across the product line, with reports of HamClock on the Pi Zero W up to the Pi 4 and 5. Each model presents a different challenge with regards to RAM, connectors and connectivity. The Pi Zero uses mini HDMI and micro USB. These adapters can easily cost more than the Pi Zero.

My choice for the optimal HamClock Pi is the 3B+. This model has 1 GB RAM, Ethernet, Wi-Fi, a mini SD card slot, full size HDMI, 4 full size USB connectors and is powered by a 2.5 Amp or greater USB wall adapter.

## Software Selections

The Raspberry Pi OS (or Raspian as it was formerly known) is a Debian-based Linux specially configured for the Pi. The OS is actively maintained and has progressed PAST what the HamClock code supports!

The best choice is the last Bullseye release. You will find it here:

[https://downloads.raspberrypi.com/raspios\\_arm64/images/raspios\\_arm64-2023-05-03/2023-05-03-raspios-bullseye-arm64.img.xz](https://downloads.raspberrypi.com/raspios_arm64/images/raspios_arm64-2023-05-03/2023-05-03-raspios-bullseye-arm64.img.xz)

Raspberry Pi Imager (<https://www.raspberrypi.com/software/>) is the quick and easy way to install Raspberry Pi OS to a microSD card, ready to use with your Raspberry Pi.

The process is straightforward, but takes a while. Cable up the Pi to a monitor (or TV), keyboard, and mouse, and power up. The setup will also take a while and will eventually reboot into a full GUI.

## On To HamClock

To install HamClock on a Raspberry Pi follow these steps:

Open a terminal on the target system GUI desktop by clicking on the red Raspberry → Accessories → Terminal. This will give you a command line prompt for the next step.

Download and run the installer script by entering the following commands:

```
cd
curl -O https://www.clearskyinstitute.com/ham/HamClock/install-hc-rpi
chmod u+x install-hc-rpi
./install-hc-rpi
```

Answer each question by typing y or n followed by Enter.

If you chose not to install a desktop icon, you can run HamClock from the terminal at any time by typing this command:

```
hamclock &
```

HamClock will configure itself the first time it runs. If there are no errors then that's it!

Be sure to read the User Guide to get the most from HamClock.